work in a few of those branches of plant physiology which are at present attracting attention. Matter already found in textbooks has been almost entirely excluded. The method of treatment is largely historical, and the topics are for the most part confined to those with which the author has had a first-hand acquaintance in the laboratory—especially such topics as are being investigated by the staff of the school of botany, Trinity College, Dublin. Some hitherto unpublished work is included, and throughout the book quantitative data are quoted wherever obtainable.

There are fourteen chapters dealing, in succession, with the carbohydrates of the Angiosperm leaf in relation to photosynthesis, methods of estimating carbohydrates in plant extracts, the carbohydrates of the Thallophyta and Bryophyta in relation to photosynthesis, the pectic substances, osmotic pressure in plants, the osmotic equilibrium in the cell and its surroundings, the permeability of protoplasm, the permeability of organic membranes other than protoplasm, the magnitudes of osmotic pressures and electric conductivities in plants and the factors which influence them, osmotic pressure in relation to plant distribution, morphology, and cell division, the functions of the wood, the plant oxidases, the oxidases in relation to pigmentation and the anthocyan pigments, the oxidases in relation to plant pathology and to technology.

There is a bibliography of twenty pages, and a good index. The book will certainly be warmly welcomed by those who are pursuing advanced work along related lines, either with classes or as investigators. It serves to put one in convenient touch with a large list of recent titles, and the author's own experience has enabled him to evaluate much of the work he reviews in a manner that will prove helpful.

C. Stuart Gager

PROCEEDINGS OF THE CLUB

October 25, 1916

The meeting was held in the morphological laboratory of the New York Botanical Garden at 3:30 P.M. Vice-president Barnhart presided. Twelve persons were present.

The minutes of the meeting held October 10 were read and approved.

Miss Grace G. Lyman, 507 W. 121st St., N. Y. City, and Dr. Henry B. Douglass, 452 Riverside Drive, N. Y. City, were nominated for membership.

Dr. Britton suggested that it would be advisable to have a committee appointed to represent the Club in case it should seem desirable to take an active part in connection with the coming meetings of the Botanical Society of America and the American Association for the Advancement of Science in New York City. A motion was carried to appoint as such committee, with power, the members of the "subcommittee of the local committee" of the A. A. A. S. The members of this committee: Professor R. A. Harper, Dr. C. Stuart Gager, Prof. H. M. Richards, Prof. E. S. Burgess, and Prof. Bertram Butler, are also members of the Torrey Club.

Miss Grace G. Lyman was then elected to membership.

Mr. George V. Nash exhibited a flowering specimen of an interesting plant, a species of *Monodora*, then in flower in the conservatories of the N. Y. Botanical Garden. "The plant is about ten feet tall and was a gift of Miss Helen Gould in 1900. The Genus *Monodora* was based upon two species, *M. Myristica* and *M. microcarpa*, the latter now referred to *Diospyros*. *Monodora Myristica* was based on *Anona Myristica* Gaertn., who saw fruit of it in the Banksian Herbarium. Dunal referred to this as a native of Jamaica. In Botanical Magazine this is figured at plate 3059, the material from which the illustration was prepared coming from a Jamaican plant; this plant was said to have been brought from South America to the Retreat Estate, Clarendon, Jamaica. It is known as the calabash nutmeg.

"This plate does not quite agree with the present material, but at plate 7260 of the same work is figured a plant of *Monodora grandiflora*. This very closely resembles the specimen shown. It is a native of tropical west Africa, and Oliver, in his flora of tropical Africa, considers it a variety of *M. Myristica* under the name *grandiflora*.

"The genus *Monodora* is confined to tropical Africa, and con-

tains about twenty species. The Jamaican plant must have come originally from Africa."

(The above abstract was furnished by the speaker.)

The announced scientific paper consisted of a paper on "New and Special Plantations of the N. Y. Botanical Garden," by Dr. N. L. Britton and Mr. G. V. Nash. Dr. Britton gave a general outline of the plans for the development of the additional one hundred and forty acre tract and the new plantations that are to be developed therein. He exhibited a map and showed the location of each, and stated under what auspices they are to be developed. Mr. Nash explained the details of planting and labeling.

After the conclusion of the program the meeting was adjourned and those present were invited to inspect these plantations under the guidance of the speakers.

B. O. Dodge,
Secretary

November 11, 1916

The first regular November meeting was held at the American Museum of Natural History, at 8:15 P.M. Vice-president Richards presided. There were forty-six persons present.

As there was no business to be transacted the speaker of the evening, Dr. Alfred Gundersen was introduced. Dr. Gundersen gave an illustrated lecture on "Foreign Trees in the City Parks." The speaker's abstract follows:

"European trees in many cases can be distinguished from the American species of the same genus by their keeping their foliage longer. Seedlings are coming up by a carpellate *Ginkgo* tree in Prospect Park near the Plaza with no staminate tree in the vicinity and a question was raised whether *Ginkgo* may be parthenogenetic. Other foreign trees in the Parks that are of special interest are English yew, cedar of Lebanon, *Cryptomeria*, *Cercidiphyllum*, Japan pagoda tree, *Phellodendron* and *Paulownia*."

The speaker exhibited a number of specimens of leaves and fruits of various park trees. A general discussion of questions raised followed the lecture.

Meeting adjourned.

B. O. Dodge,
Secretary

NOVEMBER 29, 1916

The meeting was held in the morphological laboratory of the N. Y. Botanical Garden at 3:30 P. M. President Harper presided. Fifteen persons were present.

The minutes of the meetings held October 25 and November 10 were read and approved.

Dr. Harper reported for the committee appointed to represent the Torrey Club at the meeting of the Botanical Society of America.

Dr. Henry B. Douglass, 452 Riverside Drive, N. Y. City, and Mr. J. Evans, Grant Orchards, Wash., were elected to membership.

The announced scientific program was then carried out.

Dr. Marshall A. Howe read a paper on "Structural Dimorphism in a Red Alga." This paper is published in full in the December number of the BULLETIN.

The second paper was by Dr. W. A. Murrill. The title was "A Very Rare Polypore Located in the Virginia Mountains." In addition to his discussion of the species of *Spongipellis* discovered the speaker described the region visited. Some of the features mentioned are included in a paper published by Dr. Murrill in the December number of Torreya under the title, "A New Paradise for Botanists."

Mrs. E. G. Britton spoke briefly on the subject "The Use of Sphagnum for Surgical Dressings."

Mr. R. S. Williams reported the recent occurrence of the Evening Grosbeak in the N. Y. Botanical Garden.

Dr. Britton exhibited a collection of plants that had been obtained from the tombs at Luxor, Egypt. It was estimated that these specimens are about 3266 years old, and many of them are so well preserved that it is hoped that their identification will not be a difficult matter.

Adjournment followed.

B. O. DODGE,
Secretary

DECEMBER 12, 1916

The meeting was held at the American Museum of Natural History at 8:15 P.M. President Harper presided. Forty-nine persons were present.

There was no business to be transacted. The announced program consisted of an illustrated lecture on "A decade of the Salton Sea," by Dr. D. T. MacDougal.

Adjournment followed.

B. O. Dodge,
Secretary

NEWS ITEMS

Rev. E. J. Hill, of Chicago, whose botanical papers have appeared in various journals for many years, died January 22, in his eighty-fourth year.

Exercises on the occasion of the dedication of the completed laboratory building and plant houses of the Brooklyn Botanic Garden are planned for April 19, 20, 21. The new building and greenhouse additions will be completed by that time. Sessions for the reading of scientific papers and a public reception are among the events planned. Members of the Club are invited to the scientific meetings, and further particulars will be published in the March number.

Mr. H. E. Thomas, instructor in botany at the Virginia Polytechnic Institute, sailed on March 3, to Mayaguez, to do work in plant pathology at the Federal Experiment Station, Porto Rico.

Mr. Lex Hesler of Cornell University, has been granted a year's leave of absence to study plant diseases in Porto Rico. He sailed for Mayaguez on February 10th.